1646

Docket No.: APBI-P04-035

(PATENT)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Baltimore et al.

Application No.: 10/037415

Group Art Unit: 1646

Filed: January 4, 2002 Examiner: Not Yet Assigned

NUCLEAR FACTORS ASSOCIATED WITH For:

TRANSCRIPTIONAL REGULATION

RECEIVED

INFORMATION DISCLOSURE STATEMENT (IDS)

NOV 0 6 2002

Commissioner for Patents Washington, DC 20231

**TECH CENTER 1600/2900** 

Pursuant to 37 CFR 1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned.

Applicants respectfully submit that no copy of any patent, publication, or other information listed on the enclosed Form PTO/SB/08 is necessary because the citations were made in prior application U.S.S.N. 08/464,364 filed on June 5, 1995 which is relied upon in this application for an earlier filing date under 35 U.S.C. 120.

While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR 1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

Application No.: 10/037415 Docket No.: APBI-P04-035

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

Dated:

Respectfully submitted

Matthew Wincent

Registration No.: 36,709

ROPES & GRAY

One International Place

Boston, Massachusetts 02110-2624

(617) 951-7000

(617) 951-7050 (Fax)

Attorneys for Applicant

Sheet Page 1 of 4

For PTO/SB/08  • INDORMATION DISCLOSURE CITATION				Docket Number (Optional) Application APBI-P04-035 10/037,415			tion Number	
PN AND PPLICATION				Applicant				
/O(Use	(Use several speets if necessary)			Baltimore et al.  Filing Date Group Art Unit				
	A TOTAL	. 3		January 4, 2002	16			
Filing Date January 4, 2002  U.S. PATENT DOCUMENTS  Group Art Unit 1646								
EXAMPLER	RABEMA	UMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING D	ATE
INITIAL	٠	OWENT NOWBER	DATE	IVAIVIE	Į.		APPROPRI	IATE
					REC	EIVED		
					NOV	0 6 2002		
							กก	
				TECH CENTER 1600/2900				
				FOREIGNTATEM DOCUMENTS		Translation		ion
	DOC	UMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO
	AA	WO 87/04170	7/16/87	PCT				
	····	,						
		OTHER 1	DOCUM	IENTS (Inc.	luding Author T	Title, Date, Pertine	nt Pages Etc.)	
		Baeuerle, P.A. & Baltin	nore, D.	Activation of DNA-Binding Activity in ar				
	AB	Transcription Factor. C	Cell 53, 2	11-217 (1988).				
		Raeuerle P.A. & Baltin	nore D	Activation of NF-kB: A Transcription Fac	tor Controlling	Expression of the	Immunoglobu	lin k
	AC	Baeuerle, P.A. & Baltimore, D. Activation of NF-kB: A Transcription Factor Controlling Expression of the Immunoglobulin k Light-Chain Gene and of HIV. <i>The Control of Human Retrovirus Gene Expression</i> , Banbury Conference, Cold Spring Harbor, NY 217-226 (1988).						
	15	Baeuerle, P.A. & Baltimore, D. IκB: A Specific Inhibitor of the NF-κB Transcription Factor. Science 242, 540-546 (1988).						
	AD							
			Baldwin, A. & Sharp, P. et al. Binding of a Nuclear Factor to a Regulatory Sequence in the Promoter of the Mouse H-2Kb Class					
	AE	I Major Histocompatibility Gene. <i>Mol. Cell Biol.</i> 7, 305-313 (1987).						
				Two Transcription factors, NF-kB and H		ith a single regular	tory sequence	in the
	AF	class I major histocomp	atability	complex promoter. PNAS 85, 723-727 (1	988).			
		Rallard D.W. et al. HT	TI V.,I Ta	y Induces Cellular Proteins that Activate t	he kR Flement i	n the II -2 Recento	or a Gene Sci	onco
	AG	Ballard, D.W. et al. HTLV-I Tax Induces Cellular Proteins that Activate the kB Element in the IL-2 Receptor a Gene. Science 241, 1652-1657 (1988).						
	АН	Banerji, J. et al. A Lymphocyte-Specific Cellular Enhancer is Located Downstream of the Joining Region in Immunoglobulin Heavy Chain Genes. <i>Cell</i> 33, 729-740 (1983).						
	АП							
	Bergman, Y. et al. Two Regulatory Elements for Immunoglobulin kappa light chain gene expression. PNAS 81, 7041					81, 7041-704	5	
,	AI	AI (1984).						
		Blanar, M.A. et al. NF-kB Binds within a Region Required for B-Cell-Specific Expression of the Major Histocompatability						ty
	AJ	Complex Class II Gene Ead. Mol. Cell Biol. 9, 844-846 (1989).						
	Bohnlein, E. et al. The Same Inducible Nuclear Proteins Regulates Mitogen Activation of Both the Interleukin-2 Receptor-						·-	
	AK	A1 1 - Compand Town LUIV C 11 52 027 027 (1000)						
	AL	Church, G.M. et al. Ce	ıı-type-s	pecific Contacts to Immunoglobulin Enhar	icers in Nuclei.	Nature 313, 798-8	801 (1985).	
	, TL							

Form PTO/SB/08		Docket Number (Optional)	Application Number			
	DISCLOSURE CITATION	APBI-P04-035	10/037,415			
	APPLICATION  If sheets if necessary)	Applicant Baltimore et al.				
· · · · · · · · · · · · · · · · · · ·	, , , , , , , , , , , , , , , , , , , ,	Filing Date	Group Art Unit			
MOV 0 4 2002 =		January 4, 2002	1646			
Cross, S.L. et al. Functionally Distinct NF-κB Binding Sites in the Immunoglobulin κ and IL-2 Receptor alpha Chain Ge Science 244, 466-469 (1989).						
AN	Davis, N. et al. Rei-Associated pp+0. All fillionol of the Rei Failing of Transcription Factors. Science 253, 1208-1271					
AO	Fletcher, C. et al. Purification and Characterization of OTF-1, a Transcription Factor Regulating Cell Cycle Expression of a Human Histone H2b Gene. Cell 51, 783-793 (1987).					
AP	Foster, J. et al. An Immunoglobulin Promoter Displays Cell-Type Specificity Independently of the Enhancer. <i>Nature</i> 315, 423-425 (1985).					
AQ	Fried, M. & Crothers, D.M. Equilibria and Kinetics of lac Repressor-Operator Interactions by Polyacrylamide gel Electrophoresis. <i>Nucleic Acids Res.</i> 9, 6505-6524 (1981).					
AR	Garner, M.M. & Revzin, A. A Gel Electrophoresis Method for Quantifying the Binding of Proteins to Specific DNA Regions: Application to Components of the Escherichia coli Lactose Operon Regulatory System. <i>Nucleic Acids Res.</i> 9, 3047-3060 (1981).					
AS	Gerster, T. et al. Cell Type-Specificity Elements of the Immunoglobulin Heavy Chain Gene Enhancer. <i>EMBO J.</i> 6, 1323-1330 (1987).					
AT	Grosschedi, R. & Baltimore, D. Cell-Type Specificity of Immunoglobulin Gene Expression is Regulated by at Least Three DNA Sequence Elements. <i>Cell</i> 41, 885-897 (1985).					
AU	Goodbourn, S. et al. Human Beta-Interferon Gene Expression is Regulated by an Inducible Enhancer Element. <i>Cell</i> 41, 509-520 (1985).					
AV	Gosh, S. & Baltimore, D. Activation in vitro of NF-kB by phosphorylation of its inhibitor IkB. <i>Nature</i> 344, 678-682 (1990).					
AW	Haskill, S. et al. Characterization of an Immediate-Early Gene Induced in Adherent Monocytes that Encodes IkB-like Activity. Cell 65, 1281-1289 (1991).					
AX	Johnston et al. Present Status and Future Prospects for HIV Therapies. Science 260, 1286-1293 (1993).  AX					
AY	Karin, M. et al. Activation of a Heterologuous Promoter in Response to Dexamethasone and Cadmium by Metallothionein Gene 5' Flanking DNA. Cell 36, 371-379 (1984).					
AZ	Kawakami, K. et al. Identification and Purification of a Human Immunoglobulin-Enhancer-Binding Protein (NF-κB) that Activates Transcription from a Human Immunodeficiency Virus Type 1 Promoter in Vitro. <i>PNAS</i> 85, 4700-4704 (1988).					
ВА		Ko, HS. et al. A Human Protein Specific for the Immunoglobulin Octamer DNA Motif Contains a Functional Homeobox Domain. Cell 55, 135-144 (1988).				
ВВ	Landolfi, N.F. et al. Interaction of cell-type-specific Nuclear Proteins with Immunoglobulin V <sub>H</sub> Promoter Region Sequences. <i>Nature</i> 323, 548-551 (1986).					
ВС	Lenardo, M.J. et al. NF-kB Protein Purification from Bovine Spleen: Nucleotide Stimulation and Binding Site Specificity. <i>PNAS</i> 85, 8825-8829 (1988).					

Form PTO/SB/08		Docket Number (Optional)	Application Number		
	DISCLOSURE CITATION	APBI-P04-035 10/037,415			
	APPLICATION I sheets if necessary)	Applicant Baltimore et al.			
	isheels if hecessary)	Filing Date	Group Art Unit		
NOV 0 4 2002 =		January 4, 2002	1646		
Lenardo, M.J. et al. Protein-Binding Sites in Ig Gene Enhancers Determine Transcriptional Activity and Inducib 236, 1573-1577 (1987).  Lenard et al. Interleukin 2 Recentor Gene Expression in Normal Human T Lymphocytes. PNAS 82, 6281-628.					
BE	Leonard et al. Interleukin 2 Receptor Gene Expression in Normal Human T Lymphocytes. PNAS 82, 6281-6285 (1985).				
BF	Leung, K. & Nabel, G.J. HTLV-1 Transcription Induces Interleukin-2 Receptor Expression Through an NF-kB-like Factor.  Nature 333, 776-778 (1988).				
BG	Mason, J.O. et al. Transcription Cell Type Specificity is Conferred by an Immunoglobulin V <sub>H</sub> Gene Promoter That Includes a Functional Consensus Sequence. <i>Cell</i> 41, 479-487 (1985).				
ВН	Mercola, M. et al. Immunoglobulin Heavy-Chain Enhancer Requires One or More Tissue-specific Factors. <i>Science</i> 227, 266-270 (1985).				
ВІ	Mercola, M. et al. Transcriptional Enhancer Elements in the Mouse Immunoglobulin Heavy Chain Locus. Science 221, 663-665 (1983).				
ВЈ	Nabel, G. & Baltimore, D. An Inducible Transcription Factor Activates Expression of Human Immunodeficiency Virus in T Cells. <i>Nature</i> 326, 711-713 (1987).				
ВК	Nelsen, B. et al. The NF-kB-Binding Site Mediates Phorbol Ester-Inducible Transcription in Nonlymphoid Cells. <i>Mol. Cell Biol.</i> 8, 3526-3531 (1988).				
BL ·	Nelson, K.J. et al. Inducible Transcription of the Unrearranged k Constant Region Locus is a Common Feature of the Pre-B Cells and Does Not Require DNA or Protein Synthesis. <i>PNAS</i> 82, 5305-5309 (1985).				
ВМ	Picard, D. & Schaffner, W. A Lymphocyte-specific Enhancer in the Mouse Immunoglobulin kappa Gene. <i>Nature</i> 307, 80-82 (1984).				
BN	Queen, C. & Baltimore, D. Immunoglobulin Gene Transcription is Activated by Downstream Sequence Elements. Cell 33, 741-748 (1983).				
ВО	Queen, C. & Stafford, J. Fine Mapping of an Immunoglobulin Gene Activator. Mol. Cell Biol. 4, 1042-1049 (1984).				
BP	Ruben, S. et al. Cellular Transcription Factors and Regulation of IL-2 Receptor Gene Expression by HTLV-1 tax Gene Product. Science 241, 89-92 (1988).				
BQ	Sassone-Corsi, P. et al. A Trans-acting Factor is Responsible for the Simian Virus 40 Enhancer Activity in Vitro. <i>Nature</i> 313, 458-463 (1985).				
BR	Scheidereit, C. et al. Identification and Purification of a Human Lymphoid-Specific Octamer-Binding Protein (OTF-2) that Activates Transcription of an Immunoglobulin Promoter in Vitro. Cell 51, 783-793 (1987).				
BS	Sen, R. & Baltimore, D. Inducibility of k Immunoglobulin Enhancer-Binding Protein, NF-kB by a Posttransitional Mechanism. Cell 47, 921-928 (1986).				
ВТ	Sen, R. & Baltimore, D. Mul (1986).	tiple Nuclear Factors Interact with the In	nmunoglobulin Enhancer Sequences. Cell 46, 705-716		

		·			Sheet Page 4 of 4	
Form PTO/SB/08			Docket Number (Optional)		Application Number	
Singh H et al. A Nuclear Face			APBI-P04-035		10/037,415	
			Applicant			
. waters	severa	il sheets if necessary)	Baltimore et al.			
m Q A De	<u></u>		Filing Date		Group Art Unit	
Ma -	<del>\$/</del>	Chal II at a A North	January 4, 2002	) ( .: C: T	1646	
TATE TRADEMARY	BU	Singh, H. et al. A Nuclear Factor that Binds to be Conserved Sequence Motif in Transcriptional Control Elements of Immunoglobulin Genes. <i>Nature</i> 319, 154-158 (1986).				
	BV	Staudt, L. et al. Cloning of a Lymphoid-specific cDNA Encoding a Protein Binding the Regulatory Octamer DNA Motif. Science 241, 577-580 (1988).				
	BW	Staudt, L.M. et al. A Lymphod-specific Protein Binding to the Octamer Motif of Immunoglobulin Promoter in Vitro. <i>Nature</i> 323, 640-643 (1986).				
	вх	Strauss, F. & Varshavsky, A. A Protein Binds to a Satellite DNA Repeat at Three Specific Sites that Would be Brought into Mutual Proximity by DNA Folding in the Nucleosome. <i>Cell</i> 37, 889-901 (1984).				
g g	BY	Treisman, R. Transient Accumulation of c-fos RNA Following Serum Stimulation Requires a Conserved 5' Element and c-fos 3' Sequences. <i>Cell</i> 42, 889-902 (1985).				
	BZ	Wall, R. et al. A Laible Inhibitor Blocks Immunoglobulin k-light-chain-gene Transcription in a Pre-B Leukemic Cell Line. PNAS 83, 295-298 (1986).				
:	CA	Wirth, T. & Baltimore, D. Nuclear factor NF-kB can Interact Functionally with its Cognate Binding Site to Provide Lymphoid-Specific Promotor Function. <i>EMBO J.</i> 7, 3109-3113 (1988).				
	СВ	Wu et al. Purification of the Human Immunodeficiency Virus Type 1 Enhancer and TAR Binding Proteins EBP-1 and UBP-1. EMBO J. 7, 2117-2129 (1988).				
	CC	Zabel, U. & Baeurle, P. Purified Human IkB can Rapidly Dissociate the Complex of the NF kB Transcription Factor with Cognate DNA. <i>Cell</i> 61, 255-265 (1990).				
EXAMINER		I	ſ	DATE CONSIDERED		
			or not citation is in conformance w		w line through citation if not in	

Patent and Trademark Office; U.S. DEPARTMENT OF COMMERERCE

